171 use honey dew which forms on Phragmites communis, also on rush, Juncus; Yavapai and Papago obtain it principally from willow, but also from cane.

262 Tübatulabal also occasionally sucked sections
263 of freshly cut cane for its sweetness (SM).

Saline crystals which form in dry hot weather
258 on salt grass made into "salt" (tu·t). Salt grass
137 grows in saline areas, on valley floors, at base
824 of foothills; its utilization among Tübatulabal depended on weather, as "after a rain it takes a month for salt grass to get salt again" (SM). Grass cut, spread out on mats to dry in sun; after grass thoroughly dry same process followed as described above for obtaining honey dew, save that collected crystals made up into balls or flat cakes instead of being spread on tule tray. Chunks
[272 equal to 2-3 full tablespoons broken off dry ball,
278 dissolved in cupful of water and drunk either for
757] refreshment or as laxative and to rinse out stomach. Salt-grass crystals also obtained by children who took willow switches and "swept" salt grass with them early on summer mornings; when sufficient quantity of crystals had adhered to stick, child took it to shady spot and licked off crystals. Fresh salt grass soaked in water and this
[262 water sprinkled over raw chopped clover, or sprigs
263] of salt grass and clover rolled between hands and eaten. Substance manufactured from salt grass never used to season meat or mushes.

314 Chewing gum made from milky juice of Asclepias
824 erosa Torr. (pololi·wa·bY·l); stalk of plant cut near top before it blossomed and juice collected in 4-in. tubular sections of jointed stalk of Eriogonum elongatum gramineum n. var. Stokes (ined.), (šiko·ništ). Joint of stalk served as natural stopper for bottom end of tubular section; juice run into stalk through open upper end; filled sections of stalk set in hot ashes to roast until plant juice inside has congealed; stalks then cut open, gum removed and chewed. This gum "better than store gum" (ES).

262 Meals.- Meals eaten twice daily around sunrise
264 and before sundown. At morning meal (wi·lil) and evening meal (tu·kil) men, children ate first, then women. Meat eaten at both meals, "if people
[445 had it." Men, women used spoons (ta·mil) made from antelope horn (ša·wun) for eating acorn mush (SM), or wooden spoons (FP); PN said spoons of elk, antelope horn not made. Acorn mush eaten with fingers (MM). No formula spoken before eating. Children pieced during day; "mothers gave
[753 them a cup of chia gruel" (SM). Food rarely eaten
774 after dark as ghosts "come around at night; they
609] might throw something in the food that would make a person sick" (SM, FP). Because strangers potential enemies who might put poison in food, person avoided eating with them. Women when out for day gathering seeds, tending tobacco, etc., took lunch with them which they ate about 10 or 11 a.m.; men hunting deer "didn't take any food; they came home in the evening" (FP).

[276] Lime.- Tobacco as prepared above used with lime (či·ut), obtained from calcareous deposits 317 in South Fork valley, from burnt fresh-water mussel shells, or by magical means. Lime from deposits dug out of ground near surface of soil in form grayish, powdery mass which was put in fire and burned; sometimes water poured over it to "make it stronger" (ES). Informants said slaking aboriginal technique. Shells of river mussels also burned and pounded to powder in pit mortars. 789 In order to obtain lime by magical means, "an old man used to go to a spring E of Fay creek and scatter eagle down on the water, saying, 'Give me your lime'; then the old man would leave the spring and go and lie down in the shade for about 2 hours. When he returned to the spring the lime would be piled up for him at the edge of the spring, ready for him to take away. An old woman who lived in the spring, šo·ubišt, gave him the lime. Anyone could get lime that way" (SM).

276 Tobacco and lime mixed by taking chunk of tobacco broken off ball, equivalent to teacupful, putting this, together with tablespoonful of lime, into small portable stone mortar kept in house for this purpose, and pounding 2 ingredients with small pestle 3-5 in. long, until they were of consistency of snuff. In aboriginal times this snuff-like admixture (šo'ogonht) kept in container made from horn of mt. sheep (SM).

Uses.- Tobacco and lime chewed, drunk, snuffed, eaten by men and women, and also used as offering. For chewing, pinch of mixture sprinkled in palm of hand and palm licked off; FP when using tobacco and lime applied tongue directly to contents of her open tobacco container, which happened to be tin snuff box. Tobacco and lime, mixed with water, also made into small pellets size of marbles; one of these held on tongue for minute or 2, then spit out into palm of hand; this done 6-7 times a day, whenever person felt like it; made person feel "dizzy" and "drunk" (MM). Tobacco without lime never used for any form of chewing; it was "no good, and made one feel sick; taken with lime it tastes peppery and strong" (SM). Many persons chew habitually; children 6 yrs. old "too young to chew tobacco" according to LT, who added, however, that her own son, barely 6, "likes to take it whenever he can get it."

757 Before retiring at night tobacco and lime,
● 278 mixed with water, drunk; this causes vomiting whereby stomach is rinsed out and person assured of sound, dreamless slumber. Cupful of decoction sufficient for 6 people; those who drank tobacco thus "mainly old people, although young ones sometimes drank it, too" (MM). SM in 1932 drinking tobacco every night; "he doesn't dream bad dreams then" (MM). Whether person took it alone or with group optional.

[756] Tobacco without lime smoked by old men and by
276 male shamans while curing patients. Women and female shamans or witches did not smoke. Chunk
887 of tobacco broken off ball, finely crushed in

THERAPEUTICAL PRACTICES

757 General good health induced by sweat bathing, observing pregnancy, menstrual taboos, bathing in hot springs, taking some simple herb medicines, as salt-grass crystals in warm water every morning for laxative purposes, to clean out stomach. In sicknesses, before taking patient to shaman for treatment which partook of nature of religious ceremony herb medicines (ti·bo·hišt) might be administered by old man, woman. Such persons often doctored ailing members of family, without any singing ceremony; "anyone who knew
759 the right medicine for an ailment would do this;
757 sometimes a herbalist would be sent for to treat a sick person; in that event he'd be paid. People learned about the medicines from their parents or grandparents, or a man would know about a medicine and other people would pay him to tell them.
[177] They learned a lot about medicines from the Mexicans, too. Now the witches have spoiled all the plant medicines except jimsonweed; they can't spoil that because it's too strong" (SM). In situations where shamans failed to effect cure, herb medicines might be administered after shamanistic treatment.

757 Ants also used as medicine; charms sometimes applied to body to relieve pain.

Plant, insect remedies.- Following plant, insect remedies, unless initialed otherwise, given by SM.

757 Piece jimsonweed root (mo·mo·ht), Datura
824 meteloides HBK., weed, about 12 in. long, dug,
278 washed, macerated, set to soak for day in 2 qts. cold water; in evening water strained, given to patient, who had abstained from food, drink for 3 days and had cleaned out stomach every morning during fast with bitter drink made from roots of reise blanco. After taking dose patient fell into stupor which lasted 12-24 hrs.; during this time he was turned from one side to other; if he lay on his back or stomach he would fail to revive. FP's father blew whistle when giving her jimsonweed (see Autobiography of FP). While under influence drug patient might walk around, but was watched carefully; sometimes had visions (Voegelin, 1935 b, 215); SM imagined row of fence posts were dancers in feather costumes when he took drug; MM one time saw man who told him to take jimsonweed again in week; next time MM took it he saw white lizard drop from his shoulder, black one from his knee; when he awoke his rheumatism had disappeared. Sometimes patients, upon advice of person seen in stupor, drank jimsonweed 3 times before they were cured.

Before digging root plant addressed briefly; drink could not be administered in summer as "the roots are all right then, but when it's hot you want water; if you drink water and then drink jimsonweed, you get bloated right away" (SM). If drug taken without fasting at least 3 days, dose immediately vomited.

757
824
278

SM had given jimsonweed to MM for rheumatism, after shaman failed to cure him; to RP when she was badly bloated, constipated; had taken it himself when wounded in leg, as anodyne; FP had taken it for rheumatism (see Autobiography of FP).

Dry pounded jimsonweed root used as poultice on sores to relieve inflammation.

Powdered tobacco and lime snuffed to clear nose during colds. Tobacco, lime mixed with water, drunk in evening in sweat house, among groups people or by individuals in order to induce vomiting, thus insuring dreamless slumber.

Large root of yerba mansa, Anemopsis californica (Nutt.) Hook (čahpanÏ·l), boiled in qt. water for hour, decoction strained, cupful drunk every 2 hours for day or so, for heavy colds. Piece of root 1 in. long of Langloisia matthewsii (Gray) Greene (paništ), desert floral area, boiled in pint of water few minutes, dose taken 3 times during day for colds.

As laxative, 4-5 tsp. salt-grass crystals (p. 15) mixed with 1 tsp. ordinary salt in cup warm water used.

Leaves, flowers Stenotopsis linearifolius (DC) Rydb. (ča·dača·dapïl), foothill floral area; stalks, flowers Ericameria monactis (Gray) McCl. (same name); roots of Encelia actoni Elmer, desert floral area, boiled, affected parts washed with decoction for rheumatism.

Leaves, flowers Diplacus longiflorus Nutt., or D. aurantiacus Jepson, both foothill floral area, boiled, decoction strained, drunk for stomach-ache. Dry heads Eriogonum fasciculatum Benth. var. polifolium T. & G., foothill floral area, boiled, tea drunk for stomach-ache, diarrhea.

Entire plant of turpentine weed, Trichostema lanceolatum Benth. (ši·gišt), foothill floral area, boiled, infusion snuffed up nose to stop headaches, nosebleed.

For bloody flux, entire plant Heliotropum curassavicum L., general in alkaline soils, boiled, decoction drunk; handful of dried flower heads of Eriogonum fasciculatum Benth. var. polifolium T. & G., foothill floral area, boiled 1/2 hr. in water, decoction strained, cupful given 3 times daily; mild enough to give children.

Stalks, leaves of Indian tea, Ephredra viridis Coville (u'tu·udul), desert floral area, boiled; decoction "good for blood" (SM), used for syphilis (?).

Entire plants Eriogonum virgatum Benth. (šiko··nišpul), foothill floral area; E. baileyi Wats., E. gracillimum Wats., Chorizanthe staticoides Benth., desert floral area, boiled, infusions used as lotions for pimples.

Ripe seeds Argemone platyceras Link & Otto (šo·'lolo·pul), Great Basin floral area, pounded, used as poultice on open sores, piles. Ripe seeds of Echinocystis brandegei Cogn. (čawakišt) and E. horrida Cogn., foothill floral area, burned until black, rubbed with fingers in palm of hand until reduced to greasy paste which was smeared over pimples, rubbed over baby's umbilicus after navel

757 cord had dropped off (SM). Entire plant of Hugelia
824 densiflora Benth., foothill floral area, broken
278 up, applied as poultice for ulcers; plant also boiled, decoction drunk for heart disease.

Entire plant Euphorbia polycarpa Benth. (šimindiŋ ti·bo·hišn, rattlesnake medicine), desert, dry areas, pounded, applied as poultice to opened rattlesnake bite; plant boiled and bite washed with decoction.

Entire plant Castilleia miniata Douglas, foothill floral area, boiled, spots affected with poison oak washed with decoction daily for 4, 5 days.

Milky juice from stalks Asclepias erosa Torr. (polcli·wa·bul), desert floral area, rubbed on warts to make them disappear.

Leaves of Polygonum sp. (tamandiŋ ti·bo·hišn, tooth medicine) chewed into quid, which was held in mouth against aching tooth.

Furze from stems of Eriophyllum confertiflorum (DC) Gray (po·a·ništ), foothill floral area, scraped off with fingernail, rolled into balls 1/4-1/2 in. thick; 3 balls put in succession on spot affected with rheumatism and set on fire; balls "burned like powder." Blisters raised not pricked open immediately.

Pitch from balsam (ana·nu·l), Digger pine, Pinus sabiniana mixed with grease, used as salve on sores in recent times, not aboriginally.

757 For heavy colds, paralysis, 4-5 yellow ants
825 (SM), large red ants (FP), wrapped together in
278 little ball of eagle down; 15-20 of these balls swallowed with sips of water, one ball at time, by man, woman who had abstained from meat for month, fasted for 2-3 days and vomited each morning during fast, previous to taking ants. After swallowing the balls patient frightened, "so the ants would break out of the balls and sting patient"; latter remained in stupor 24 hrs., at end of this time given warm water to induce vomiting. According to MM, if all ants came up alive, patient would recover completely, if half of them were dead he "wouldn't live long," and if all dead he would die shortly. For FP's experience taking ants, see her Autobiography. Yellow ants "could sting hardest and had medicine"; other varieties no good (SM). After taking ants patient ate only little acorn mush for 2-3 days, no meat, grease for month (FP). Live ants also put on sick person's abdomen, "if patient didn't want to drink them" (FP).

824 If woman having protracted labor, person own-
842 ing amulet rubbed this over parturient to hasten
845 delivery. Herbal decoctions were drunk to induce
847 fecundity, to prevent conception and produce
278 abortions but the plant species from which these were made could not be obtained.

RELIGIOUS BELIEFS

771 Deity, culture hero.- Concept of supreme deity
776 lacking; "people didn't know about the man who

754 Besides foregoing practices, witches might also use poison (mušmal); one of witches at Onyx
278 rancheria said to possess poison which she ob-
177 tained at Tule from Yokuts, among whom poisoners
824 active (Gayton, 1930, 390); FP mentions 2 cases poisoning in her autobiography and blames Tule River Yokuts for both. Poison used is obtained from plant and is not exclusive possession of shamans; it is administered in food, which makes people loath to accept food from strangers (SM).

753 Ghosts sometimes put hair, tiny pebbles in
775 food when people ate after dark; this also caused sickness.

754 Various preventive measures taken against witchcraft; SM swallowed tobacco and lime every
751 night to induce vomiting so that he would not have bad dreams. Person who dreamt of coyote, rattlesnake, went out into canyon early next morning, made speech to creature, upbraiding him, and blew bad dream away (Voegelin, 1935 b, 217). Some persons took jimsonweed, etc., to obtain supernatural power against witchcraft.

754 Various attempts made to overcome effects of
755 witchcraft; relatives of sick person often made
756 direct threats to witch; when RP sick, her brother went to witch at Onyx, told latter, "If you don't
626 cure my sister I'm going to do something to you." Witch took RP out in bushes, threw ashes over her, talked to her pet and told it not to make RP ill any more; RP recovered. FP's husband made similar threat to witch. MM said relatives of sick person paid $10-20 to witch sometimes so that latter would stop sickening patient; FP corroborated
[757] this, SM said only threats used. Medicinal herbs also administered to restore health (ante); if these failed, or in violent illness, services of curing shaman engaged; actual practices of such detailed below; shaman might or might not tell patient who was bewitching him; if witch a relative of shaman latter loath to tell, might advise patient to move away from house. If curing shaman told patient who was witching him, and latter's relatives threatened witch but to no avail, shaman might make witch come to see patient and effect cure; witch cured by blowing sickness out of patient's body, using feather which he waved back and forth. Evil shamans who could only bewitch never sucked out pain in curing a victim, as other shamans did, because if pain sucked out it would enter witch's body, cause his own death, he not being powerful enough to remove it.

683 If witch refused to cure sick person or stop
627 malevolent practices, patient's relatives, after obtaining chief's sanction, often killed witch.
622 Evil shamans both sexes treated thus; if sister
754 of chief a witch, chief would talk to her, warn her to stop her evil practices, but if she did not he would order her killed (SM). Murder of witch might be accomplished by one or several individuals; witch might be lowered over cliff (see Autobiography of FP), shot; Bill Viejo Chico bound with hair rope, tied to tree, burned alive. In

159 but the judge at Kernville told him he couldn't
764 because Pete had children and the horses belonged
765 to them. That's the way the old-timers always wanted to do; if a man died his brothers or par-
159 ents took away the man's possessions instead of
768 letting the widow have any of them. Not the dead man's clothes, because they were burned, but his horses, wagon, or anything like that. Now they can't do that way.

159 My husband was killed in November and I didn't
765 eat meat after that until the next March. I cut my hair right after he was killed; I cut it off so that it came down a little way over my shoulders. And Legora and I wore black dresses for
[777] one yr. It gives you bad luck if you wear black too long; one yr. is enough. The old-timers never used to wash their faces after a relative had died, until they ate meat again; they bathed, but they never washed their faces. I washed mine
[572] though, before I ate meat. Legora and my son helped me get that money to eat meat again; I paid my ta·gin $50 for washing my face. I had a cousin for a ta·gin; she moved over to Visalia and died there.

159 Nobody saw that white man kill my husband; a
626 long time afterward Legora heard that man tell
522 somebody, "I killed my good friend, but he talked bad to me; I couldn't stand it." One time after that Legora saw that white man when he was drunk; she went up to him and she said, "You killed my father; now I'm going to kill you." He was frightened; it made us all laugh, how frightened he was. "Oh, no, Legora; don't do that! Don't kill me," he said. He looked funny when he said that, so frightened. Legora and all of us laughed and laughed at him.

159 Two yrs. after my husband died Willie Andreas
591 started living with Legora. She was 17 yrs. old
585 then. We lived up at yĭtiyamup; Legora and Willie and I lived in the same house. I used to sit down all the time and make baskets. Not very many women made baskets then; Petra Nichols made them, too. Legora had a boy born to her.

159 One time my son had a fight with a Tule River
578 reservation man living up here. They got into a
278 quarrel; my son hit the Tule man on the head with a spur. After that fight the Tule man wouldn't ever talk to my son again. That man had poison; something, I don't know what; all those Tule reservation people have poison and they all know about it, men, women, young boys. It's Indian poison. The TÜbatulabal don't have that poison up here (i.e., make it), but one of those witches living up at the Onyx rancheria has some; they say she got it when she lived at Tule, and that she has it up here now. They put it in your food, in your cigarettes, in your drinks; in anything like that.

159 After that fight, one time my son got drunk and slept outside on the ground all night. It was cold; it was in November and there was frost on the ground. November was the same month my husband was killed in, 4 yrs. before.

[P. 52a] Tubatulabal NS22

T Y 534 known. The clapper (tawa´tw:l) and cocoon rattle (sa´nač) were used. The musical bow was known to the Southern Yokuts, Choinimni Yokuts, and probably northward throughout the foothills as it is reported from Western Mono, Miwok, and Maidu. [131]

T Y 224 411 Hunting.--P.M.'s father was a fine hunter; Cougar was his dream helper. When P.M. was about fifteen years old, his father took him hunting. Sinew-backed bows were bought from Pitanisha (Tübatulabal) living near Kernville. But plain bows of elderwood [? he claimed] were made at Sototlo. Arrows were of button willow tipped with a white-oak point, or of obsidian if for deer.

T Y 224 The deer disguise was made of the complete head, antlers, and skin. The head was stuffed with grass. The wearer leaned on two sticks to imitate the animal, and with them would crash about in underbrush to simulate fighting deer.

Bears were lured out of their caves by a fast runner, and shot by two or three good hunters waiting in ambush.

After the killing of an especially large deer or bear, the animal's head was sprinkled with eagle down. P.M. never heard of selling bear paws or skin to someone with a bear totem. He thinks bear was not a totem animal for any one at Sototlo.

In dividing up a carcass, the man who took the skin did not receive any meat. Men did tanning of hides.

T Y 223 The pigeon booth from which birds were snared is probably native to this region, as well as northward along the foothills, although that seen and illustrated by Holmes was on the Tule River Reservation.[132]

T Y 276 Tobacco.--Tobacco (so´gon) was drunk with lime. The preparation was like that elsewhere: the cakes of dried leaves were pounded with a small mortar (koi´wes) and pestle (pa´lwi), crushed shells (ta´sap) were added, and water was stirred in. It was taken in the evening by persons of either sex who were at least twenty years of age; the purpose was to aid dreaming. Crushed tobacco was smoked in a cane pipe (ha´la) or an elderwood pipe (wi'se´ta, elderwood). Tobacco was made in the usual two cake forms, so´gon and politsi´na, but of the latter P.M. could only say that it was stronger and molded in the usual cylindrical shape.

T Y 372 Tinder.--Oak balls contained a shreddy, corklike substance called ye´ska, which was used as tinder in making fires and lighting pipes.

T Y 278 757 Medicine.--Redwood sap (ta´nal) was shaved up in a pot of hot water. A person with a wound which bled profusely steamed himself with this under a blanket; a woman who had given birth also used it in this way. A little of

[131] Ibid., 419, 542; Barrett and Gifford, 250; Wobonuch Western Mono, herein, Pt. II.

[132] Anthropological Studies, pls. 31, 32.

[P. 526] Tubatulabal NS22

the sap was chewed for a cold, but it was extremely bitter. The interpreter, S.G., bit off a little piece of tanal in my presence, made an excruciating face, spat it out, and said he "guessed he'd wait till he had a bad cold."

Moiety.--The words Nutuwich and Tokelyuwich greatly puzzled F.M., who said he had never heard about those people "and guessed those tribes were all gone." A description of the moiety as it functions amongst northern and lake Yokuts tribes merely elicited the statement that "people down here didn't act that way."

CEREMONIES

Snake ritual.--This F.M. has seen at Tule, but it was not made at Sototlo.

Bear Dance.--This was "never done down this way; they had it up toward Kaweah River."

Huhuna Dance.--This was not seen until after F.M. had settled at Tule, where it was introduced by people from the north.

Shamans' Contest.--There were not enough doctors at Sototlo for contests to be held, but these were given later at Tule where Poi'in, the woman shaman, participated.

Eagle purchase.--A man who killed an eagle would go from house to house, and at each he would be given a bit of money. Then he went to the chief who gave him a larger sum of money and received the carcass. Then the chief called the people together. After removing the skin and shinbones, they buried the carcass with some ceremony; money was always placed with it. An old man would get up and make a speech.[133] There was a tabu on meat for three days after the ceremony.

Eagle down, thus obtained by the chief, was sold by him. The old price was one [double ?] string of disc beads the length of one's arm; later $2.00 per leg was charged. The down was scattered when any act of importance was undertaken. When praying, no matter to whom the prayer was addressed, or when traveling, one sprinkled down on a hilltop or in a gap between two hills. The sanctity of eagle down was evinced by its peculiar ability to "stick anywhere on anything"; it sticks to the fingers, and when cast on the ground it does not blow away.

Jimsonweed Ritual

Jimsonweed (ta'nai) was taken about February; the rite was held every two or three years. Only men took jimsonweed; indulgence was not compulsory; it was taken only once ceremonially, but might be used frequently for medicinal purposes.

[133] F.M. could not remember what this was about, and said he "couldn't tell it anyway because my language is too short."